REMARKS

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached Appendix is captioned **"Version with markings to show changes made."**

As a preliminary matter, Applicants appreciate the Examiner's time and the courtesy extended during the September 26, 2002, personal interview with Applicants' representatives. As discussed during the interview, Applicants amended claims 14-16 to clarify that blocks are arranged adjacent to each other along a single edge outside of the liquid crystal display panel, as discussed with the Examiner.

Claims 14-16 stand rejected under 35 U.S.C. §112, first paragraph, as being new matter. In response, Applicants amended claims 14-16 to more clearly recite the features of the present invention, without narrowing their scope. Accordingly, Applicants respectfully request that the §112, second paragraph, rejection of claims 14-16 be withdrawn.

Claims 1-17 stand rejected under 35 U.S.C. § 103 (a) as being unpatentable over Youn (U.S. Patent No. 5,856,816). Applicants respectfully traverse because the cited reference does not disclose or suggest the features of a "data driver being divided into a plurality of blocks so as to divide the liquid crystal display panel into sections *arranged side by side, ...* wherein said blocks are *arranged adjacent to each other along a single edge*" of the liquid crystal display ("LCD") panel, as recited in claim 1, and the data driver being divided into a plurality of *adjacently arranged blocks* from which groups of signal lines,

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which are *adjacent to each other along a single edge* of the LCD panel, extend over

corresponding partial areas of the liquid crystal display device, as recited in claim 14. The

cited reference also fails to disclose or suggest the feature of data drivers and signal lines

being divided into a plurality of blocks that are *adjacent to each other along a single edge* of

the LCD panel, as recited in claim 15, and a data driver being divided into a plurality of

blocks *arranged side by side along a single edge* of the LCD panel, as recited in claim 16.

In particular, the Examiner has not shown, among other things, how drivers 2a

and 2b from FIG. 2 of the Youn reference disclose the features of a plurality of blocks being

arranged (1) side by side, (2) adjacent to each other, and (3) along a single edge. Moreover,

even if, *arguendo*, Applicants accept the Examiner's broad reading of the blocks, as recited,

being disclosed in the Youn reference, the cited reference nevertheless fails to disclose or

suggest "display signals being supplied from the signals lines of each block to the data bus

lines simultaneously," as recited in claims 1 and 14-16.

In FIG. 2 of the Youn reference, two drivers 2a and 2b (i.e., what the Examiner

considers as the blocks recited in claims 1 and 14-16) are separately shown. Driver 2a

includes multiple data lines (D_1, D_3, . . . D_{2n-1}), and driver 2b includes other data lines (D_2, D_4,

. . . D_{2n}). Drivers 2a and 2b are arranged on *opposite* edges of the liquid crystal panel 1, with

the data lines being alternatively placed in the liquid crystal panel 1.

According to American Heritage® Dictionary of the English Language, 4th

Edition, published by Houghton Mifflin Company, the phrase "side by side" is defined as

next to each other or close together (see also, WordNet® 1.6, published by Princeton University, defining "side by side" as being nearest in space or position, immediately adjoining without intervening space) (copy enclosed), and the word "opposite" is defined as placed or located directly across from something else or from each other (copy enclosed). In other words, driver 2a is arranged on one edge, and driver 2b is arranged on another edge on the other side of driver 2a. Thus, drivers 2a and 2b cannot be located side by side. Even if, *arguendo*, drivers 2a and 2b are not opposite of each other, they are certainly not "side by side," since the crystal display panel is located between the drivers. Thus, Applicants respectfully submit that the cited reference does not disclose or suggest the feature of a "data driver being divided into a plurality of blocks so as to divide the liquid crystal display panel into sections arranged side by side," as recited in claim 1.

Similarly, according to American Heritage® Dictionary of the English Language, 4th Edition, published by Houghton Mifflin Company, the word "adjacent" is defined as close to or next to (copy enclosed) (see also, WordNet® 1.6, published by Princeton University, defining "adjacent" as being nearest in space or position, immediately adjoining without intervening space), and the word "single" is defined as consisting of one part, aspect or section (i.e., consisting of one in number) (copy enclosed). Again, because drivers 2a and 2b are located on opposite edges, which imply at least two edges, of the liquid crystal panel, they cannot be "adjacent" to each other or along a "single" edge, as recited in the claims.

While the Examiner asserts that the drivers 2a and 2b are a plurality of blocks, the Examiner at the same time asserts that data lines D_1, D_3 ...D_{n-1} of driver 2a and data lines D_2, D_4 ...D_n can be divided into a plurality of blocks adjacent to each other within each driver. The examiner cannot arbitrarily redraw the figures to create blocks where there are none other than 2a and 2b.

Even if, *arguendo*, Applicants accept the Examiner's unreasonably broad interpretation of grouping data lines D_1, D_3 ...D_{n-1} of driver 2a and data lines D_2, D_4 ...D_n of driver 2b into blocks that are adjacent to each other, the Examiner nevertheless fails to show the motivation or suggestion from the cited reference to make such a grouping. Applicants note that the Examiner cannot consider driver 2a and driver 2b as a plurality of blocks, and at the same time consider the groups of data lines in isolation as the blocks as well. Furthermore, even with the Examiner's interpretation, the asserted argument nevertheless fails, because the data lines of the Youn reference do not work simultaneously, since each data line must be separately supplied. Otherwise, with the configuration shown in the Youn reference, the liquid crystal panel can only be dark or light. This is obviously not the case. Thus, Applicants respectfully submit that the cited reference does not disclose or suggest "display signals being supplied from the signals lines of each block to the data bus lines simultaneously," as recited in claims 1 and 14-16.

Accordingly, Applicants respectfully request that the §103 rejection of claims 1 and 14-16 be withdrawn.

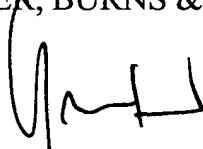Since claims 2-13 and 17 depend upon either claim 1 or claim 16, they necessarily include all of the features of the independent claim plus other additional features. Thus, Applicants submit that the §103 rejection of claims 2-13 and 17 has also been overcome for the same reasons mentioned above to overcome the §103 rejection of independent claims 1 and 16. Applicants respectfully request that the §103(a) rejection of claims 2-13 and 17 be withdrawn.

For all of the above reasons, Applicants respectfully request reconsideration and allowance of all pending claims. The Examiner should contact the undersigned attorney if an interview would expedite prosecution.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Claims 14-16 have been amended as follows:

14.   (Three times amended)   A liquid crystal display device including a data driver and a gate driver, comprising:

a liquid crystal display panel; and

groups of signal lines for carrying display signals, said signal lines within each of said groups being adjacent to each other along a single edge of said liquid crystal display panel,

the data driver being divided into a plurality of adjacently arranged blocks from which said groups of signal lines extend over corresponding partial areas of said ~~liquid crystal display panel~~the liquid crystal display device so that each of said groups of signal lines is associated with a respective one of said blocks of the data driver, wherein said signal lines in each of said blocks are connected to a plurality of data bus lines via analog switches, a number of said data bus lines is larger than a number of said signal lines, and the display signals are supplied ~~form~~ from the signal lines of each block to the data bus lines simultaneously.

15.   (Three times amended)   A liquid crystal display device including a data driver and a gate driver, comprising:

a liquid crystal display panel, and

signal lines extending from the data driver and carrying display signals,

the data driver and the signal lines being divided into a plurality of blocks so that said divided signal lines extending from one of said plurality of blocks extend over a corresponding divided area of ~~said liquid crystal display panel~~the liquid crystal display device,

wherein said plurality of blocks are adjacent to each other along a single edge of said liquid crystal display panel, said divided signal lines in each of said plurality of blocks are connected to a plurality of data bus lines via analog switches, a number of said data bus lines being larger than a number of said signal lines, and display signals being supplied from said signal lines of each of said blocks to said data bus lines simultaneously.

16.   (Three times amended)   A liquid crystal display device including a data driver and a gate driver, comprising:

a liquid crystal display panel; and

a substrate on which said liquid crystal display panel, the data driver, and the gate driver are integrally formed,

wherein the data driver is divided into a plurality of blocks arranged side by side along a single edge of the liquid crystal display panel, and each of said blocks has a plurality of signal lines that extend into ~~said liquid crystal display panel~~the liquid crystal display device and are connected to a plurality of data bus lines via analog switches, a

number of said data bus lines being larger than a number of said signal lines, and display signals being supplied from said signal lines of each block to said data bus lines simultaneously.